UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,918	01/14/2004	Yen-Fu Chen	AUS920030936US1	3762

35525 7590 01/31/2007

IBM CORP (YA)
C/O YEE & ASSOCIATES PC
P.O. BOX 802333
DALLAS, TX 75380

EXAMINER	
ABDI, AMARA	
ART UNIT	**PAPER NUMBER**
2609	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/756,918	CHEN ET AL.	
	Examiner	Art Unit	
	Amara Abdi	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/14/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

The examiner suggests filing the correct application number, and the filing date instead of ---------- on page 1, in the specification if appropriate.

Appropriate correction is required.

Claim Objections

2. Claims 3,8,15,16-20 are objected to because of the following informalities:

(1) Claim 8, line 2, "to determining" should be changed to " to determine"; and, on line 3, "**the** first" should be changed to "**a** first"

(2) Claim 15, line 2, "the" should be deleted between "of" and "at"

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 9-15 are rejected under U.S.C. 101 because the claimed invention is directed to non- statutory subject matter.

In each of claims 9,10,11,12,13,14,and 15, a "computer program" is being recited; however, computer program would reasonably be interpreted by one of ordinary skill in the art as

software, pre se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 16, and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (US 6,694,056)

(1) Regarding claim 16:

Ito et al. disclose a data processing system (fig 1 and 2) comprising:

a pointing device; (204 in figure 2)(column 12, line 13)

a display;(203 in figure 2) (column 12, line 6)

a memory (column 12, line 7), (the examiner interpreted the memory as a storage medium) that contains a set of instructions; and a processing unit (109 in figure 1) (column 11, line 64) and (column 12, line 4), (the examiner interpreted that the word detecting unit in figure 1 has the same function as the processing unit), responsive to execution of the set of instructions, for providing a computer interface that identifies a start point and an end point handwritten character stroke (column 19, line 47-48) input to the pointing device (204 in figure 2), a first stroke

parameter set calculated by the processing unit responsive to identification of the start point and the end point

(Column 23, line 1)

(2) Regarding claim 19:

Ito et al. discloses the data processing system where the processing unit (109 in figure 1), (column 12, line 4) responsive in change in trajectory of the pointing device (204 in figure 2) of at least a trajectory threshold (column 14, line 27), calculate a second stroke parameter set (column 21, line 4-5).

(3) Regarding claim 20:

Ito et al. discloses the data processing system (fig 1 and 2) where the computer interface (column 1, line 20) includes a candidate display (203 in figure 2) for displaying a candidate character identified by comparison (see the abstract) and (column 12, line 16-18) of the first stroke parameter set with a reference parameter set of reference character dictionary (column 12, line 16-18).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1,3-4,6-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view of Bryborn et al. (PGPUB 2003/0107558).

(1) Regarding claim 1:

Ito et al. disclose a method for performing handwritten character recognition (Figure 2), the method comprising the computer (column 1, line 20) implemented steps of:

Responsive to user input (105 in Figure 2) to a pointing device (204 in Figure 2) entered through a computer interface (201 in figure 2), (column 7, line 53-55), identifying a stroke start event and a stroke end event (column 2, line 23-24)

Deriving a stroke parameter from the stroke start event and the stroke end event (Column 2, line 26-27), (the examiner interpreted deriving a stroke parameter as obtaining stroke information).

However, Ito et al. does not disclose the transmitting of the stroke parameter to a server, and receiving a candidate character from the server, where the candidate character is based on the stroke parameter as recited in claim 1.

However, Bryborn et al. teaches a method comprises a transmitter and receiver for transmitting a stroke parameter to a server, and receiving a candidate character which is based on the stoke information from the server (5 in figure 1), (paragraph [0017], line 1-3), and (paragraph [0012], line 15-16).

One skilled in the art would have clearly recognized that the method of handwritten character recognition comprises a combined transmitter and receiver (transceiver) (18 in figure 4) for transfer of information (the stroke parameter or the candidate character) to or from a server (paragraph [0058], line 1-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the server of the system of Bryborn et al. in handwritten character recognition system of Ito et al. because in such feature the server has a wireless

transceiver, the processor can arrange to pass only samples of the stroke parameters to the wireless transceiver so it will reduce the amount of data transmitted via network, and also such feature will allowed the share the information at given location with different operators by internet for example.

(2) Regarding claim 3:

Ito et al. further discloses the method of handwritten character recognition system where the step of identifying includes:

Determining a coordinate of a pointing device icon (column 2, line 6-8) upon identification of the stroke start event or the stroke end event (column 2, line 8-9),

(The examiner interpreted that each handwritten stroke composing the handwritten character has the stroke start event and the stroke end event).

(3) Regarding claim 4:

Ito et al. further discloses the method, where the deriving step includes:

Calculating a plurality of stroke parameters (column 2, line 32) from the stroke start event and the stroke end event (column 2, line 23-24)

(4) Regarding claims 6 and 7:

Ito et al. discloses a system performing handwritten recognition comprising:

Receiving a match confirmation input indicating the candidate character corresponds to a character being input to the computer (see the Abstract) and (column 3, line 24-27).

However, Ito et al. does not disclose:

1) the downloading of a web page from the server as recited in claim 6,

2) the communication of the match confirmation input to the server as recited in claim7.

However Bryborn et al. teaches a system of recognition of handwritten information where the information (web page) is downloaded from the server (paragraph [0047], line 9), (the examiner interpreted that downloading of the web page from the server is done via the wireless communication), and the communication of the match information input to a server (paragraph [0017], line 1-3).

One skilled in the art would have clearly recognized that the server comprises a transceiver for wireless communication with pen via the link and WAN interface (for example network) to be connected to wide area network (paragraph [0047], line 21-24), where one possible application, is one in which the input via the pen movement (pointing device) added with an email message (for example web page downloaded from the server via a network or wireless) (paragraph [0047], line 13-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Bryborn et al. which comprises a server a network or wireless in the system of Ito et al. because such feature will allowed to download the information or web page from the server into a central computer via a network or wireless and different person in different location may have the access to the information via the internet for example.

(5) Regarding claim 8:

Ito et al. further discloses the method comprising:

Responsive to determine the candidate character (column 2, line 52-53), transmitting the candidate character to the computer (column 4, line 62-65)

(6) Regarding claim 17:

Ito et al. discloses all the subject matter above in claim 16.

However, Ito et al. does not disclose that the system comprising a network adapter for connecting the data processing system to a network computer as recited in claim 17.

However, Bryborn et al. teaches a data processing system as shown in figure 1, comprising a WAN interface (network adapter) for connecting the data processing system to the computer (paragraph [0047], line 22).

One skilled in the art would have clearly recognized that the information input via the pen or stylus is enclosed with an email message, which is transmitted via WAN, for example the internet to the computer (paragraph [0047], line 16-18). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to add the system of Bryborn et al. which comprises the network adapter in the data processing system of Ito et al. because such feature will make the work more flexible for the translation companies for example, so the data processing system will be accessible by different operators in different locations.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al. (PGPUB 2003/0107558) as applied in claim 1 above, and further in view of Kannan et al. (US 5,329,625).

Ito et al. discloses the stroke start event and stroke end event (column 2, line 23-24)

However, Ito et al. does not disclose that the stroke start event is a depression of pointing device button, and the stroke end event is a release of the pointing device button as recited in claim 2.

However, Kannan et al. teaches a system which comprises pen or stylus used as the primary input device (pointing device)(column 1, line 43-45) which includes a movable tip that closes the switch (pointing device button)(column 2, line 65-67), the stylus generates a magnetic field that is picked up by digitizer, so the digitizer can distinguish between "proximity" coordinate (switch

is open) (release of the pointing point button) and "pen down" coordinate (switch is closed) (depression of a pointing device button) (column 3, line 1-7)

One skilled in the art would have clearly recognized that a pen or stylus (pointing device) form the primary input/output means for entering information into and getting out of the computer (column 2, line 54-57) and the stylus comprises a movable tip which is working as the follow: depression of movable tip (switch closed) and a release of movable tip (switch open) (column 3, line 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time if the invention to add the system of Kannan et al. where the stylus (pointing device) comprises depression and release of the moving tip in the system of Ito et al. which comprises a stroke start event and a stroke end event because such feature requires a high precision digitizer and by using the moving tip (depression and release of pointing device) it will make the handwriting recognition faster while permitting digitization to be done rapidly and in an efficient manner.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. and Bryborn et al. (PGPUB 2003/0107558) as applied in claim 1 above, and further in view of Ilan et al. (US 6,023,529)

Ito et al. discloses the method for performing handwritten recognition as above.

However, Ito et al. does not disclose a method where calculating at least one of stroke length, stroke angle, and stroke center for the stroke parameter as recited in claim 5.

However, Ilan et al. teaches handwritten pattern recognition where the stroke parameter has a length (column 1, line 67), an angle (column 3, line 62-63), and the center (column 6, line 42-43).

One skilled in the art would have clearly recognized that some parameters include the relative length of the stroke (column 2, line 12) from pen down to the first features of interest, such us a sharp angle change (column 2, line 13), and the centers which is defined as the center of the distance between the two strokes (column 6, line 41-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Ilan et al. where the stroke parameter includes a stroke length, stroke angle and stroke center in the system of Ito et al. because such feature can be used in the system for recognizing handwritten patterns, such as letters, numbers, and signatures, for example, the difference between U and V is the angle of the letter (column 3, line 61-62), the same for Y and W, Y has one sharp angle change, where W has three sharp angle changes (column 5, line 56-59).

11. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. in view Ilan et al. (US 6,023,529)

Ito et al. discloses the method for performing handwritten recognition as above in claim 16. However, Ito et al. does not disclose the data processing system where the first stroke parameter set includes a length parameter, an angle parameter, and a center parameter as recited in claim 18.

However, Ilan et al. teaches handwritten pattern recognition processing system where the stroke parameter has a length (column 1, line 67), an angle (column 3, line 62-63), and the center (column 6, line 42-43).

One skilled in the art would have clearly recognized that some parameters include the relative length of the stroke (column 2, line 12) from pen down to the first features of interest, such us a

sharp angle change (column 2, line 13), and the centers which is defined as the center of the distance between the two strokes (column 6, line 41-43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system of Ilan et al. where the stroke parameter includes a stroke length, stroke angle and stroke center in the system of Ito et al. because such feature can be used in the system for recognizing handwritten patterns, such as letters, numbers, and signatures, for example, the difference between U and V is the angle of the letter (column 3, line 61-62), the same for Y and W, Y has one sharp angle change, where W has three sharp angle changes (column 5, line 56-59).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kawamura et al. (US 7,013,046) disclose apparatus and method for handwriting recognition.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi
01/05/2007

SHUWANG LIU
SUPERVISORY PATENT EXAMINER